CLAIMS:

1. A method comprising:

wirelessly receiving a packet at a wireless station belonging to a cell of a wireless network, the network for communicating according to a wireless network standard, each transmitting station of the cell able to transmit a packet that includes cell identification information; and

ascertaining at the physical layer level whether or not the received packet is from another station of the cell by ascertaining whether or not the received packet includes the cell identification information of the cell.

2. A method as recited in claim 1, further comprising:

aborting processing the received packet if the ascertaining step ascertains that the received packet does not include the cell identification information of the cell.

3. A method as recited in claim 1, wherein the cell is an infrastructure network having an access point, and wherein the station is an access point, the method further comprising:

transmitting the cell identification information to other stations of the cell such that the other stations can include the cell identification information in packets such other stations transmit.

4. A method as recited in claim 3, wherein the transmitting of the cell identification information to other stations of the cell uses the MAC layer protocol of the standard.

5. A method as recited in claim 1, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

6. A method as recited in claim 1, wherein a packet according to the network standard includes a preamble followed by a modulated payload, and wherein the preamble of a

packet transmitted by a station of the cell conveys the cell identification information of the cell.

7. A method as recited in claim 6, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which the preamble includes a set of short symbols, and wherein the cell identification information of the cell is conveyed in the a plurality of the short symbols are encoded such that each cell is given a different sequence.

8. A method as recited in claim 6, wherein the cell identification information of the cell is conveyed by BPSK encoding a subset of the short symbols.

9. A method as recited in claim 6, wherein the cell identification information of the cell is conveyed by QPSK encoding a subset of the short symbols.

10. A method as recited in claim 6, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

11. A method as recited in claim 1, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded, the field according to the standard including reserved or empty bits, and some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

12. A method as recited in claim 1, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which a packet includes a SIGNAL field that provides information on how the remainder of the packet is encoded, the SIGNAL field according to the standard including reserved or empty bits, and wherein some or all of the reserved or empty bits in the SIGNAL field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

13. A method as recited in claim 1, wherein the standard is a specification related to one of the OFDM variants of the IEEE 802.11 standard, and wherein according to the related specification a packet includes a SIGNAL field that provides for a station of the cell to convey the cell identification information of the cell.

14. A method as recited in claim 1, wherein a packet according to the network standard includes a preamble and a modulated part, wherein the modulated part includes reserved or empty bits, and wherein some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

15. A method as recited in claim 1, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which a packet includes a SERVICE field including reserved or empty bits, and wherein some or all of the reserved or empty bits in the SERVICE field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

16. A method as recited in claim 15, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

17. A method as recited in claim 1, wherein the station uses information of received packets that are ascertained to be not from other stations of the cell to mitigate interference from such stations that are not of the cell.

18. A method as recited in claim 1, wherein the station includes a start-of-packet (SOP) detector that has a settable signal strength threshold such that received signals of received signal strength below the settable threshold do not trigger the start of packet detector, the method further comprising:

adjusting the settable threshold according to the signal strengths of one or more received at the station and ascertained not to be from other stations of the cell.

19. A method as recited in claim 17, wherein the station includes an array of antenna elements, a set of radio receivers coupled to the array of antenna elements, and a spatial processor coupled to the radio receivers able to form a received signal according to a smart antenna processing strategy, the method further comprising:

forming the smart antenna processing strategy using information of one or more received packets that are ascertained to be not from one or more other stations of the cell to mitigate interference from such one or more other stations.

20. A method as recited in claim 19, wherein the station includes a start-of-packet (SOP) detector that has a settable signal strength threshold such that received signals of received signal strength below the settable threshold do not trigger the start of packet detector, the method further comprising:

adjusting the settable threshold according to the signal strengths of one or more packets received at the station and ascertained not to be from other stations of the cell.

21. A method comprising:

wirelessly transmitting a packet from a wireless station belonging to a cell of a wireless network, the network for communicating according to a wireless network standard, the transmitted including cell identification information, and

that cell identification information includes in a manner such that another station receiving the transmitted packet can ascertain at the physical layer level whether or not the received packet is from a station of the same cell as that of the other station by ascertaining whether or not the received packet includes the cell identification information of the same cell as that of the other station.

22. A method as recited in claim 21, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

23. A method as recited in claim 21, wherein a packet according to the network standard includes a preamble followed by a modulated payload, and wherein the preamble of a packet transmitted by a station of the cell conveys the cell identification information of the cell.

24. A method as recited in claim 23, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which the preamble includes a set of short symbols, and wherein the cell identification information of the cell is conveyed in the a plurality of the short symbols are encoded such that each cell is given a different sequence.

25. A method as recited in claim 21, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded, the field according to the standard including reserved or empty bits, and some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

26. A method as recited in claim 21, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded and for cell identification information, such that field of a packet transmitted by a station of the cell conveys the cell identification information of the cell.

27. A method as recited in claim 21, wherein a packet according to the network standard includes a preamble and a modulated part, wherein the modulated part includes reserved or empty bits, and wherein some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

28. A wireless station able be part of a cell a cell of a wireless network the network for communicating according to a wireless network standard, the station comprising:

a wireless receiver able to receive a packet from another station of a cell, each station of the cell able to transmit a packet that includes cell identification information, the receiver including a physical layer processor (PHY) able to ascertaining at the physical

layer level whether or not a packet received by the receiver packet is from another station of the cell by ascertaining whether or not the received packet includes the cell identification information of the cell.

29. A wireless station as recited in claim 28, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

30. A wireless station as recited in claim 28, wherein a packet according to the network standard includes a preamble followed by a modulated payload, and wherein the preamble of a packet transmitted by a station of the cell conveys the cell identification information of the cell.

31. A wireless station as recited in claim 30, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which the preamble includes a set of short symbols, and wherein the cell identification information of the cell is conveyed in the a plurality of the short symbols are encoded such that each cell is given a different sequence.

32. A wireless station as recited in claim 30, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

33. A wireless station as recited in claim 28, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded, the field according to the standard including reserved or empty bits, and some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

34. A wireless station as recited in claim 28, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded and for cell identification information, such that field of a packet transmitted by a station of the cell conveys the cell identification information of the cell.

35. A wireless station as recited in claim 28, wherein a packet according to the network standard includes a preamble and a modulated part, wherein the modulated part includes reserved or empty bits, and wherein some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

36. A wireless station as recited in claim 28, wherein the wireless receiver of the station the station includes a start-of-packet (SOP) detector that has a settable signal strength threshold such that received signals of received signal strength below the settable threshold do not trigger the start of packet detector, the wireless receiver further comprising a controller that is able to adjust the settable threshold according to the signal strengths of one or more received at the station and ascertained not to be from other stations of the cell.

37. A wireless station as recited in claim 28, further comprising:

an array of antenna elements, a set of radio receivers coupled to and able to receive signals from each antenna element, and a spatial processor coupled to the set of radio receivers, the spatial processor forming a received signal according to a smart antenna processing strategy, the spatial processor able to form the smart antenna processing strategy using information of one or more received packets that are ascertained to be not from one or more other stations of the cell to mitigate interference from such one or more other stations.

38. A carrier medium comprising one or more computer readable code segments to instruct a processor to implement a method in a wireless station, the method comprising:

wirelessly receiving a packet at the wireless station, the station belonging to a cell of a wireless network, the network for communicating according to a wireless network

standard, each transmitting station of the cell able to transmit a packet that includes cell identification information; and

ascertaining at the physical layer level whether or not the received packet is from another station of the cell by ascertaining whether or not the received packet includes the cell identification information of the cell.

39. A carrier medium as recited in claim 38, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

40. A carrier medium as recited in claim 38, wherein a packet according to the network standard includes a preamble followed by a modulated payload, and wherein the preamble of a packet transmitted by a station of the cell conveys the cell identification information of the cell.

41. A carrier medium as recited in claim 40, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which the preamble includes a set of short symbols, and wherein the cell identification information of the cell is conveyed in the a plurality of the short symbols are encoded such that each cell is given a different sequence.

42. A carrier medium as recited in claim 38, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded, the field according to the standard including reserved or empty bits, and some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

34. A carrier medium as recited in claim 38, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded and for cell identification information, such that field of a packet transmitted by a station of the cell conveys the cell identification information of the cell.

43. A carrier medium as recited in claim 38, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which a packet includes a SIGNAL field that provides information on how the remainder of the packet is encoded, the SIGNAL field according to the standard including reserved or empty bits, and wherein some or all of the reserved or empty bits in the SIGNAL field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

44. A carrier medium as recited in claim 38, wherein a packet according to the network standard includes a preamble and a modulated part, wherein the modulated part includes reserved or empty bits, and wherein some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

45. A carrier medium as recited in claim 38, wherein the station uses information of received packets that are ascertained to be not from other stations of the cell to mitigate interference from such stations that are not of the cell.

46. A carrier medium as recited in claim 38, wherein the station includes a start-of-packet (SOP) detector that has a settable signal strength threshold such that received signals of received signal strength below the settable threshold do not trigger the start of packet detector, the method further comprising:

adjusting the settable threshold according to the signal strengths of one or more received at the station and ascertained not to be from other stations of the cell.

47. A carrier medium as recited in claim 45, wherein the station includes an array of antenna elements, a set of radio receivers coupled to the array of antenna elements, and a spatial processor coupled to the radio receivers able to form a received signal according to a smart antenna processing strategy, the method further comprising:

forming the smart antenna processing strategy using information of one or more received packets that are ascertained to be not from one or more other stations of the cell to mitigate interference from such one or more other stations.

48. A wireless station configurable be part of a cell of a wireless network, the network for communicating according to a wireless network standard, the station comprising:

means for receiving a packet from another station of a cell, each station of the cell able to transmit a packet that includes cell identification information, the means for receiving including a physical layer processor (PHY) that includes means for ascertaining at the physical layer level whether or not a packet received by the receiver packet is from another station of the cell by ascertaining whether or not the received packet includes the cell identification information of the cell.

49. A wireless station as recited in claim 48, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

50. A wireless station as recited in claim 48, wherein a packet according to the network standard includes a preamble followed by a modulated payload, and wherein the preamble of a packet transmitted by a station of the cell conveys the cell identification information of the cell.

51. A wireless station as recited in claim 50, wherein the standard is one of the OFDM variants of the IEEE 802.11 standard according to which the preamble includes a set of short symbols, and wherein the cell identification information of the cell is conveyed in the a plurality of the short symbols are encoded such that each cell is given a different sequence.

52. A wireless station as recited in claim 50, wherein a first number of bits are provided for the cell identification information of the cell, and wherein the first number of bits are encoded into coded form of a second number of bits greater than the first number of bits according to a coding method to provide for robust communication of the cell identification information.

53. A wireless station as recited in claim 48, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded, the field according to the standard including reserved or empty bits, and some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

54. A wireless station as recited in claim 48, wherein a packet according to the network standard includes a field that provides information on how the remainder of the packet is encoded and for cell identification information, such that a packet transmitted by a station of the cell conveys the cell identification information of the cell.

55. A wireless station as recited in claim 48, wherein a packet according to the network standard includes a preamble and a modulated part, wherein the modulated part includes reserved or empty bits, and wherein some or all of the reserved or empty bits in the field of a packet transmitted by a station of the cell convey the cell identification information of the cell.

56. A wireless station as recited in claim 48, wherein the means for receiving of the includes means for detecting a start-of-packet (SOP) that has a settable signal strength threshold such that received signals of received signal strength below the settable threshold do not trigger the start of packet detector, the wireless receiver further comprising means for adjusting the settable threshold according to the signal strengths of one or more received at the station and ascertained not to be from other stations of the cell.